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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,226	04/20/2001	Alexander M. Meystel	10159-1U1	4751
7590 07/02/2004 DR. ALEXANDER M MEYSEL COGNISPHERE INC. POST OFFICE BOX 2591 WEST CHESTER, PA 19380			EXAMINER RIES, LAURIE ANNE	
			ART UNIT	PAPER NUMBER

2176

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/839,226

Applicant(s)

MEYTEL ET AL.

Examiner

Laurie Ries

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment--See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/20/2001.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 2 and 19 recite the limitation "entity grouping rules" which is not defined in the disclosure of the application.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 18 recite the limitation "meaningful N-word groups". It is unclear as to what N-word groups would be considered meaningful. Furthermore, "meaningful" is a subjective term.

The remaining dependent claims are rejected for fully incorporating the deficiencies of the base claim(s) from which they depend.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 7, 8, 10, 11, 13, 18, 19, 24, 25, 27, 29 and 32 rejected under 35 U.S.C. 102(e) as being anticipated by Mase (U.S. Patent 5,978,820).

As per claim 1, Mase discloses a system and method for analyzing selected text units from a digitally coded file. (See Mase, Column 2, lines 12-34). This analysis determines text entities including meaningful N-word groups, or noun phrases, phrases, simple sentences and compound sentences. (See Mase, Figure 9; Column 6, lines 56-67; Column 7, lines 1-2; and Column 10, lines 27-54). The system disclosed also tests the validity of the text entities using a text content/domain type determination process.

(See Mase, Column 13, lines 35-56). The system disclosed also determines a quantitative measure of the significance of each text entity, (See Mase, Column 15, lines 57-67; Column 11, lines 48-67; and Column 12, lines 1-56), and constructs a multigranular (i.e. having multiple levels of resolution, including words, phrases, and simple sentences) relational structure incorporating the text entities. The output text is generated from the relational text structure. (See Mase, Figure 1, and Column 15, lines 5-28).

As per claim 2, Mase discloses that the output text is generated using one or more entity grouping rules, in the form of summarization rules. (See Mase, Column 9, lines 17-44).

As per claim 7, Mase discloses that the output text generated from the relational text structure conforms to predefined user constraints. (See Mase, Column 8, lines 55-67, and Column 9, lines 1-6).

As per claim 8, Mase discloses that the predefined user constraints include the volume of output text to be generated (See Mase, Column 9, lines 21-24), a set of keywords to be reflected in the output text (See Mase, Column 9, lines 17-24), and the level of generalization of the output text (See Mase, Column 9, lines 31-36).

As per claim 10, Mase discloses that analyzing the text units includes comparing each word against one or more dictionaries to determine its part of speech. (See Mase, Figure 1, element 7; Figure 20a; and Column 12, lines 47-50).

As per claim 11, Mase discloses that analyzing the text units includes attaching each word to a word in its immediate vicinity and using grammatical rules to reduce the

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ambiguity of the text unit. (See Mase, Column 6, lines 38-44, lines 56-67, and Column 7, lines 1-7).

As per claim 13, Mase discloses that the analysis of the text units is based on the frequency of occurrence, the number of associative links with other text entities, and correspondence of the text unit with predefined user parameters. (See Mase, Figure 8; and Column 11, lines 21-36).

Claim 18 is rejected on the same basis as claim 1.

Claim 19 is rejected on the same basis as claim 2.

Claim 24 is rejected on the same basis as claim 11.

Claim 25 is rejected on the same basis as claim 8.

Claim 27 is rejected on the same basis as claim 10.

Claim 29 is rejected on the same basis as claim 13.

Claim 32 is rejected on the same basis as claim 7.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mase (U.S. Patent 5,978,820) as applied to claims 2 and 19 above, and further in view of Kupiec (U.S. Patent 5,918,240).

As per claim 3, Mase discloses the limitations of claim 2 as described above. Mase does not disclose expressly that the entity grouping rules require that the temporal order of the digitally coded text file be maintained in the output text. Kupiec discloses that the summarized text is outputted in the same temporal order as the original input data. (See Kupiec, figures 9 and 10). Mase and Kupiec are analogous art because they are from the same field of endeavor of producing automatic document summaries. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the system and method of generating output text from a relational text structure of Mase with the temporal order of the data as disclosed by Kupiec. The motivation for doing so would have been to produce a logically readable summary of the data that remains identical in precision to the original document. (See Mase, Column 16, lines 10-20). Therefore, it would have been obvious to combine Kupiec with Mase for the benefit of precise document summarization to obtain the invention as specified in claim 3.

Claim 20 is rejected on the same basis as claim 3.

Claims 4-6, 14, 21-23, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mase (U.S. Patent 5,978,820) as applied to claims 1, 2, 18, and 19 above, and further in view of Ozawa (U.S. Patent 5,200,893).

As per claim 4, Mase discloses the limitations of claim 2 as described above. Mase does not disclose expressly that the entity grouping rules require the grouping of sentences having before action parts with the same actor. Ozawa discloses a system



where the description of the subject (or actor) precedes the actor. These collocations are extracted and stored as new collocations in a work area of the database. (See Ozawa, Column 29, lines 1-54). Mase and Ozawa are analogous art because they are both from the same field of endeavor of automatic text generation. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the entity grouping rules of Mase with the grouping of sentences having before action parts with the same actor, as disclosed by Ozawa. The motivation for doing so would have been to more easily determine if the resulting phrases existed in an online dictionary used to store noun (or actor) words and phrases. (See Ozawa, Column 29, lines 28-37). Therefore, it would have been obvious to combine Ozawa with Mase for the benefit of improved data analysis to obtain the invention as specified in claim 4.

As per claim 5, Mase discloses the limitations of claim 2 as described above. Mase does not disclose expressly that the entity grouping rules require the grouping of sentences having after action phrases with the same subject or object upon which the action was executed. Ozawa discloses a system where sentences having after action phrases with the same subject are grouped together. (See Ozawa, Figure 8, and Column 29, lines 13-68). Mase and Ozawa are analogous art because they are both from the same field of endeavor of automatic text generation. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the entity grouping rules of Mase with the grouping of sentences, as disclosed by Ozawa. The motivation for doing so would have been to more easily determine if the resulting phrases existed in an online dictionary used to store noun (or actor) words and

phrases. (See Ozawa, Column 29, lines 28-37). Therefore, it would have been obvious to combine Ozawa with Mase for the benefit of improved data analysis to obtain the invention as specified in claim 5.

As per claim 6, Mase discloses the limitations of claim 2 as described above.

Mase does not disclose expressly that the entity grouping rules require the grouping of sentences having action phrases with the action belonging to a group of actions represented by the same generalized action. Ozawa discloses that a syntax dictionary is utilized in which various expressions corresponding to the same contents are provided. (See Ozawa, Column 4, lines 30-38). Mase and Ozawa are analogous art because they are both from the same field of endeavor of automatic text generation. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the entity grouping rules of Mase with the action phrase grouping of Ozawa. The motivation for doing so would have been to further refine the rules used to determine the usage of words in summarizing a document. (See Ozawa, Column 3, lines 23-33). Therefore, it would have been obvious to combine Ozawa with Mase for the benefit of more accurate data summarization to obtain the invention as specified in claim 6.

As per claim 14, Mase discloses the limitations of claim 1 as described above.

Mase does not disclose expressly that the phrases include action phrases, before action phrases, and after action phrases, and that analyzing the text units to determine the text entities is accomplished using grammatical rules for action and subject recognition. Ozawa discloses the inclusion of action phrases, before action phrases and after action

phrases. (See Ozawa Column 29, lines 1-68, and figure 8). Ozawa also discloses that the text units are analyzed by using grammatical rules for action and subject recognition. (See Ozawa, Figure 30, and Column 29, lines 14-27). Mase and Ozawa are analogous art because they are both from the same field of endeavor of automatic text generation. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the phrases of Mase with the action phrases, before action phrases, after action phrases, and grammatical analysis of Ozawa. The motivation for doing so would have been to further refine the rules used to determine the usage of words in summarizing a document. (See Ozawa, Column 3, lines 23-33). Therefore, it would have been obvious to combine Ozawa with Mase for the benefit of improved data summarization to obtain the invention as specified in claim 14.

Claim 21 is rejected on the same basis as claim 4.

Claim 22 is rejected on the same basis as claim 5.

Claim 23 is rejected on the same basis as claim 6.

Claim 30 is rejected on the same basis as claim 14.

Claims 9 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mase (U.S. Patent 5,978,820) as applied to claims 1 and 18 above, and further in view of Richardson (U.S. Patent 6,108,620).

As per claim 9, Mase discloses the limitations of claim 1 as described above. Mase does not disclose expressly that the text file is parsed using a system of natural dividers to recognize text sections, paragraphs, sentences, and words. Richardson

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discloses that portions of text are selected and parsed based on natural phrase and clause boundaries. (See Richardson, Column 3, lines 51-67). Mase and Richardson are analogous art because they are both from the field of endeavor of analyzing and parsing natural language stored electronically. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the analysis of the text file of Mase with the parsing of the text file using natural dividers of Richardson. The motivation for doing so would have been to obtain a logical breaking point for the extraction of a portion of the input data for analysis. (See Richardson, Column 3, lines 4-8). Therefore, it would have been obvious to combine Richardson with Mase for the benefit of improved data parsing to obtain the invention as specified in claim 9.

As per claim 12, Mase discloses the limitations of claim 1 as described above. Mase also discloses that analyzing text units to determine text entities includes searching the text file to find frequent occurrences of words. (See Mase, figure 21a). Mase does not disclose expressly that the text units are selected from the parsed text file by using windowing (viewing a segment of text at one time) and scanning. Richardson discloses a system and method of parsing a text file using chunking, which includes viewing only a portion of the text file at a particular time, and scanning the portion selected. (See Richardson, Column 3, lines 1-5, and Column 7, lines 60-63). Mase and Richardson are analogous art because they are both from the field of endeavor of analyzing and parsing natural language stored electronically. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the data analysis system and method of Mase with the parsing system and

method of Richardson. The motivation for doing so would have been to develop syntactical rules based on a first portion of text selected that could then be applied to subsequent portions of text, thereby producing more accurate parsing. (See Richardson, Column 3, lines 10-20). Therefore, it would have been obvious to combine Richardson with Mase for the benefit of improved data parsing to obtain the invention as specified in claim 12.

Claim 26 is rejected on the same basis as claim 9.

Claim 28 is rejected on the same basis as claim 12.

Claims 15, 16, 31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mase (U.S. Patent 5,978,820) as applied to claims 1 and 18 above, and further in view of Tsourikov (U.S. Patent 6,167,370).

As per claim 15, Mase discloses the limitations of claim 1 as described above. Mase does not disclose expressly that the simple sentences include triplets of interrelated before action phrases, action phrases, and after action phrases. Tsourikov discloses the analysis of sentences containing related subject-action-object structures. (See Tsourikov, Column 5, lines 57-67, and Column 6, lines 1-67). Mase and Tsourikov are analogous art because they are from the same field of endeavor of analyzing natural text documents. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the text analysis of Mase with the sentence structures of Tsourikov. The motivation for doing so would have been to better determine the document content and thus provide a more accurate document summary.

(See Tsourikov, Column 7, lines 1-8). Therefore, it would have been obvious to combine Tsourikov with Mase to improve the summarization process and thus obtain the invention as specified in claim 15.

As per claim 16, Mase discloses the limitations of claim 1 as described above. Mase does not disclose expressly that the output text is generated by grouping together before action phrases, action phrases, and after action phrases as a relational structure. Tsourikov discloses that the output text is comprised of a grouping of subject-action-object extractions. (See Tsourikov, Column 6, lines 1-67). Mase and Tsourikov are analogous art because they are from the same field of endeavor of analyzing natural text documents. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the output text of Mase with the sentence structures of Tsourikov. The motivation for doing so would have been to produce an output document that reflects the same meaning as the inputted text. (See Tsourikov, Column 7, lines 1-8). Therefore, it would have been obvious to combine Tsourikov with Mase to improve the accuracy of the output document to obtain the invention as specified in claim 16.

Claim 31 is rejected on the same basis as claim 15.

Claim 33 is rejected on the same basis as claim 16.

Claims 17 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mase (U.S. Patent 5,978,820) as applied to claims 1 and 18 above, and further in view of Hetherington (U.S. Patent 6,272,495 B1).

As per claim 17, Mase discloses the limitations of claim 1 as described above. Mase does not disclose expressly that the volume of output text can be limited to a specified number of words while maintaining a level of text generation factor, a depth of descriptive details factor, and a semantic focus of attention to add up to 1 (or 100%).

Hetherington discloses a method of text evaluation that accounts for a level of text generation (i.e. the level at which generated output is generalized), a depth of descriptive detail (i.e. the information provided in the output text is sufficient to convey the intended meaning), and a semantic focus of attention which, when processed, will return a confidence of 100%. (See Hetherington, Column 17, lines 59-67, and Column 18, lines 1-12). Mase and Hetherington are analogous art because they are from the same field of endeavor of automatic text generation. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the output text generation method of Mase with the data generation detail of Hetherington. The motivation for doing so would have been to produce accurate data providing the required amount of detail. (See Hetherington, Column 6, lines 25-32). Therefore, it would have been obvious to combine Hetherington with Mase for the benefit of data accuracy to obtain the invention as specified in claim 17.

Claim 34 is rejected on the same basis as claim 17.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Unger (U.S. Patent 5,991,713) discloses a method for compressing text includes steps of parsing words from text in an input file and comparing the parsed words to a predetermined dictionary.

Witbrock (U.S. Patent 6,317,708 B1) discloses a method for preparing a summary string from a source document of encoded text.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurie Ries whose telephone number is 703-605-1238. The examiner can normally be reached on Monday-Friday from 7:00am to 3:30pm.

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LAR

  
JOSEPH FEILD  
SUPERVISORY PATENT EXAMINER